memory 310 are associated with process 9 on the system, and thus are pointed to or identified by linked list 312. Note that linked lists 302 and 312 both point to memory buffer 308, indicating that this resource is associated with both process 4 and process 9 on the system. Linked lists 312 also points to an I/O buffer 320 within an I/O device 318 that has been identified as being associated with process 9.

REMARKS

The above amendments to the specification merely correct typographical errors. Thus, no new matter has been added.

Claims 1-72 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,485,573 (hereinafter "Tandon") in view of U.S. Patent No. 6,195,760 (hereinafter "Chung") and further in view of U.S. Patent No. 4,164,017 (hereinafter "Randell"). Applicants respectfully traverse the rejection.

Claim 1 recites "preserving in place the state of a first set of system resources after the failure occurs in the computer system." The Office action states:

> From the examiner's view and interpretations that a computer system comprises a storage for storing original information state.

(October 1, 2002 Office action, page 2, paragraph 3). However, claim 1 does not recite "a computer system comprises a storage for storing original information state."

The Office action also states:

> When there is a failure occurs in a computer, the information is restored from the storage the saved the original information. Randell teaches this concept.

(October 1, 2002 Office action, page 2, paragraph 3). However, claim 1 does not recite "[w]hen there is a failure occurs in a computer, the information is restored from the storage the saved the original information."

The Office action further states:

> In the background, Randell teaches, a memory for storing all items information in the system so these items information restored as desired after a failure occurs (see column 1 lines 8-22). This teaching anticipates the claim limitation.

(October 1, 2002 Office action, page 2, paragraph 3). The cited passage of Randell discloses:

> A program to be carried out on a computer system is constructed from identifiable operations, each of which constitutes a block and consequently the complete program can be regarded as a set of blocks. Many blocks are themselves constructed from further smaller blocks so that the complete program forms a nested set of blocks. On completion of a block, it is frequently desired to restore the apparatus to state in which it was at the beginning of the block. One way of doing this is to make a separate record in memory of the computer to the initial states of all items of information in the system. This is extremely wasteful of storage capacity since, in many blocks, only a comparatively small number of such items of information will change.

(Randell col. 1, ll. 8-22). However, claim 1 does not recite "a memory for storing all items information in the system so these items information restored as desired after a failure occurs."

The Office action states:

> Further, Randell found that this method is extremely wasteful of storage capacity. Therefore, Randell improvement is to minimize the storage capacity and

> still retrieving original state information efficiently by determining whether there is a need to preserve the state of each item of information (see column 1, lines 44-50).

(October 1, 2002 Office action, pages 2-3, paragraph 3). The cited passage of Randell discloses:

> In one form of the invention, said means for associating additional information with the items of information comprises further memory means addressable with said first memory means for determining whether there is a need to preserve the state of each item of information in said first memory means if said item of information changes state during the current block.

(Randell col. 1, ll. 44-50). However, claim 1 does not recite "minimize the storage capacity and still retrieving original state information efficiently by determining whether there is a need to preserve the state of each item of information."

Claim 1 recites "preserving in place the state of a first set of system resources after the failure occurs in the computer system." In contrast, Randell discloses:

> The apparatus has a main store and a cache store that preserves the states that have previously been taken up by items of information prior to commencing each block so that the states of the items of information prevailing at the beginning of a block can be restored if required.

(Randell Abstract). Thus, Randell fails to teach or suggest the claimed element. Since the Examiner conceded that neither Tandon nor Chung disclose or suggest "preserving in place the state of a first set of system resources after the failure occurs in the computer system" as recited in claim 1, none of the references teach or suggest the claimed element. (May 6, 2002 Office action, page 3, lines 17-18).

Claim 1 also recites "diagnosing the failure by analyzing one or more resources from the first set of system resources." The Office action states:

> Again, examiner's view and interpretations that when there is an error in a computer, the data information must be recorded for later diagnosing and correction. Column 2 lines 3-15 of Tandon teaches this concept.

(October 1, 2002 Office action, page 4, paragraph 4). The cited passage of Tandon discloses:

> Historically, when a program such as a DBMS detected a problem on a first host processor, it saved the necessary data for later analysis. In addition, the error would be reported to an operator who could take whatever further steps were necessary. Meanwhile, the other host processors in the multihost environment will continue to process transactions. If the operator who became aware of the problem at the first host processor could not act quickly enough, the applications on the other host processors may destroy data which may be critical to discovery of the source of the problem. If the critical data is not available for analysis, the logic problem could go unsolved, only to resurface another day.

(Tandon col. 2, ll. 3-15). However, claim 1 does not recite "when there is an error in a computer, the data information must be recorded for later diagnosing and correction."

Claim 1 recites "diagnosing the failure by analyzing one or more resources from the first set of system resources." In contrast, Tandon discloses:

> The first operation performed by Snapshot processing of the DBMS 24 on the receiving Host Processor 10 is to save the contents of memory allocated to the DBMS to a dump file as shown by Step 122. The dump file is then available for analysis by a system programmer for isolating the source of the error.

(Tandon col. 7, ll. 40-45). Thus, Tandon fails to teach or suggest the claimed element. Additionally, neither Randell nor Chung teaches "diagnosing the failure by analyzing one or more resources from the first set of system resources" as recited in claim 1. Accordingly, none of the references teach or suggest the claimed element.

For at least these reasons, claim 1 is patentable over the combination of Tandon, Chung, and Randell. Claims 2-11 and 61-62, which depend from claim 1, are allowable for at least the same reasons. Claims 12, 21-22, 41, and 52 recite elements similar to those discussed with respect to claim 1 and are therefore patentable for at least the same reasons. Claims 13-20, 23-40, 42-51, 53-60, and 63-72, which depend from claims 12, 21-22, 41, and 52, are allowable for at least the same reasons.

CONCLUSION

On the basis of the above remarks, reconsideration and allowance of the claims is believed to be warranted and such action is respectfully requested. If the Examiner has any questions or comments, the Examiner is respectfully urged to contact the undersigned at the number listed below.

Respectfully submitted,

Bingham McCutchen LLP

Dated: 12-02-02

By: _____
Erin C. Ming
Reg. No. 47,797

Three Embarcadero Center, Suite 1800
San Francisco, CA 94111-4067
Telephone: (650) 849-4904
Telefax: (650) 849-4800

VERSION WITH MARKINGS TO SHOW CHANGES

In the Specification

The paragraph on page 12, lines 10-19, is amended as follows:

In the example of Fig. 3, linked list 302 identifies the system resources associated with process 4 on the system while linked list 312 identified the system resources associated with process 9 on the system. Memory buffers 304, 306, and 308 within system memory 310 are all associated with process [5]4, and thus are pointed to or identified by linked list 302. Memory buffers 308, 314, and 316 within system memory 310 are associated with process 9 on the system, and thus are pointed to or identified by linked list 312. Note that linked lists 302 and 312 both point to memory buffer 308, indicating that this resource is associated with both process [5]4 and process 9 on the system. Linked lists 312 also points to an I/O buffer 320 within an I/O device 318 that has been identified as being associated with process 9.